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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,104	04/30/2001	Gavan Tredoux	A0840	1617

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EXAMINER

BLAIR, DOUGLAS B

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,104

Applicant(s)

TREDOUX ET AL.

Examiner

Douglas B. Blair

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/9/2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 7,007,093 to Spicer et al..

4. As to claim 1, Spicer teaches a reverse proxy network communication scheme comprising: a proxy agent located inside a protected network addressable by a least one internal network device, the proxy agent establishing outgoing network connections (col. 4, lines 4-24, the polling server is addressable by the print server); a security device through which all traffic between the protected network and external networks must travel, the security device permitting at least outgoing connections via at least one predetermined network protocol (the firewall in

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Figure 1); an external proxy server outside the protected network and reachable by the proxy agent via outgoing network connections through the security device, the external proxy server also being addressable by at least one external network device, thereby allowing communication between the at least one external network device and the at least one internal network device, and wherein the external proxy server does not initiate connections with the proxy agent (The proxy server in Figure 1 is the external proxy server).

5. As to claim 3, Spicer teaches the scheme of claim 1 further including an outgoing proxy server in communication with the agent and which the proxy agent used to establish outgoing connections (col. 2, lines 36-65, the firewall proxy or the transcoding server could be considered such an outgoing server).

6. As to claim 4, Spicer teaches the scheme of claim 1 wherein the external proxy server is in communication with at least one other network, receives, and stores data addressed to the at least one internal network device (col. 3, line 31-col. 4, line 5).

7. As to claim 5, Spicer teaches the scheme of claim 4, wherein the proxy agent polls the external proxy server to check for data addressed to the at least one internal network device (col. 5, lines 5-45).

8. As to claim 6, Spicer teaches the scheme of claim 5 wherein the proxy agent downloads data addressed to the at least one internal network device from the external proxy server and forwards the data to the at least one internal network device (col. 4, line 31-col. 5, line 4).

9. As to claim 8, Spicer teaches the scheme of claim 1, wherein the proxy agent forwards outgoing data to the external proxy server, which transmits the data to the at least one external network device (col. 2, lines 36-65).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 6,854,121 to Barnard et al..

12. As to claim 2, Spicer teaches the reverse proxy scheme of claim 1; however Spicer does not explicitly teach the use of HTTP for communication with the internal network devices.

Barnard teaches the use of HTTP for communications with devices such as those taught by Spicer (col. 8, lines 38-61).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Spicer regarding communication to a private network with the teachings of Barnard regarding the use of HTTP for connecting to a network device because Spicer is not specific about the protocol used to actually communicate with the internal devices so Barnard shows that HTTP would be a logical choice.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 6,854,121 to Barnard et al. in further view of U.S. Patent Number 6,510,464 to Grantges Jr. et al..

14. As to claim 7, Spicer teaches the reverse proxy scheme of claim 4; however Spicer does not explicitly teach the proxy server ensuring proper cookie routing.

For reasons discussed in the rejection of claim 2 it would have been obvious to combine the teachings of Spicer with the use of HTTP.

The Spicer-Barnard combination makes obvious the use of HTTP to communicate with devices such as those taught by the Spicer-Barnard combination; however they do not explicitly teach ensuring proper cookie routing.

Grantges, Jr. teaches a proxy server that ensures proper cookie routing (col. 11, line 63-col. 12, line 10).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-Barnard combination regarding the use of HTTP in a system for communicating with private network devices with the teachings of Grantges, Jr. regarding the routing of cookies because cookies are commonly communicated during HTTP communication.

15. Claims 9-10, 13-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 6,457,054 to Bakshi et al..

16. As to claim 9, Spicer teaches a method of accessing an internal network device on a protected network, the network including a security device, the method comprising: storing data addressed to the internal network device in an external proxy server (col. 4, lines 4-24); maintaining a proxy agent on the protected network, the proxy agent executing the step of: polling the external proxy server for data addressed to the internal network device, where polling includes: connecting to the external proxy server to check for pending traffic (col. 4, lines 4-24); receiving from the external proxy server when the external proxy server has received data from a

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client (col. 4, lines 4-24); forwarding to the internal network device any data on the external proxy server and addressed to the internal network device; and forwarding to the external proxy server any data addressed to an external device in communication with the external proxy server (col. 4, lines 4-24); however Spicer does not explicitly teach the external proxy server sending a stream of spurious bytes if there is nothing pending for the internal network device.

Bakshi teaches a method of receiving a stream of spurious bytes from a proxy server if there is nothing pending for the network device (col. 3, lines 46-67).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Spicer regarding communication through a private network with the teachings of Bakshi regarding the transmission of spurious bytes because spurious bytes keep communication channels open and thus reduce latency that would be required to establish a connection (Bakshi, col. 3, lines 46-67).

17. As to claim 10, Spicer teaches a method of polling the external server at regular intervals (col. 4, lines 4-24).

18. As to claim 13, Bakshi teaches a method of multiplexing multiple requests from the proxy agent to proxy server through the same connection (col. 3, line 46-67).

19. As to claim 14, Spicer teaches a method of maintaining by the proxy server maps between local TCP/IP ports of the proxy server and private IP addresses on the protected network, the maps being distinguished by an identity of the proxy agent used to access them (col. 4, lines 4-44).

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20. As to claim 15, Spicer teaches a method of publishing by each proxy agent a list of addresses it can reach to the external proxy server, the external proxy server using this list to create a respective map between local ports and proxy agents (col. 4, line 55-col. 5, line 15).

21. As to claim 20, Spicer teaches a method of providing network administrators control over the system including granting administrators the ability to allow and deny entry into the protected network on a per session basis (col. 4, line 55-col. 5, line 15).

22. Claim 11-12, 16, 20-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 6,457,054 to Bakshi et al. in further view of U.S. Patent Number 6,510,464 to Grantges Jr. et al..

23. As to claim 11, the Spicer-Bakshi combination does not explicitly teach the use of two separate protocols to inside and outside the private network.

Grantges Jr. teaches a method of communicating by an internal network device with a proxy using a first network protocol and an external network device communicating with the proxy using a second protocol (Figure 7).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-Bakshi combination regarding communication to devices on a private network with the teachings of Grantges, Jr. regarding the use of different protocols inside and outside of the private network because some connections may be required to be secure.

24. As to claim 12, Grantges Jr. teaches a method wherein data addressed to an internal network device using a second network protocol is transmitted to the internal device using the

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first protocol so that the second protocol is carried to the internal network device inside the first network protocol (HTTP traffic is encrypted using HTTPS).

25. As to claim 16, the Spicer-Bakshi combination does not explicitly teach ensuring cookie delivery.

Grantges, Jr. teaches a proxy server that ensures proper cookie routing (col. 11, line 63-col. 12, line 10).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-Bakshi combination regarding a system for communicating with private network devices with the teachings of Grantges, Jr. regarding the routing of cookies because cookies are commonly communicated during HTTP communication.

26. As to claim 18 and 19, they are rejected for the same reason as claims 11 and 12.

27. As to claim 20, Grantges Jr. teaches the use of X.509 certificates (Fig 7).

28. As to claim 21, the Spicer-Bakshi combination teaches the method of claim 9 however the Spicer-Bakshi combination does not explicitly teach rewriting cookies with unique identifiers.

Grantges Jr. teaches rewriting cookies with unique identifiers to prevent inadvertent transmission of private information to an incorrect recipient on the protected network (col. 9, line 54-col. 10, line 5).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-Bakshi combination regarding a system for communicating with private network devices with the teachings of Grantges, Jr.

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regarding the routing of cookies because cookies are commonly communicated during HTTP communication.

29. As to claim 23, the Spicer-Bakshi combination teaches the method of claim 9 however the Spicer-Bakshi combination does not explicitly teach granting a key for access.

Grantges teaches a method wherein access is conferred by granting a key with a predetermined life span (col. 7, lines 63-col. 8, line 14).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-Bakshi combination regarding a system for communicating with private network devices with the teachings of Grantges, Jr. regarding granting a key because keys are commonly used to identify requesters.

Response to Arguments

30. Applicant's arguments with respect to claims 1-16 and 18-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Blair



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SUPERVISORY PATENT EXAMINER